



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/043,951	05/15/98	PASTYR	0 4121-104

MM42/1001
STEVEN J HULTQUIST
INTL PROP TECHNOLOGY LAW
P O BOX 14329
RESEARCH TRIANGLE PARK NC 27709

EXAMINER

PORTA.D

ART UNIT	PAPER NUMBER
----------	--------------

2876

7

DATE MAILED: 10/01/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/043,951

Applicant(s)

PASTYR ET AL.

Examiner

David P. Porta

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,14-17 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,12,13,18 and 19 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☒ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 17) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other:

Art Unit: 2876

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 7, 8, 9, and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nunan (4,868,844). Nunan discloses a contour collimator for radiotherapy comprising a plurality of plate-shaped diaphragm elements (29), provided in a guide block (20), and movably arranged with respect to one another comprising at least one drive has a drive (44) each associated with each diaphragm element, and driving transmission means (42) provided between each drive and the associated diaphragm elements. Each driving transmission has a flexible power transmitting means, one end of which is connected to the diaphragm element and the other end is connected to the drive (necessary for the apparatus to work). Each drive is a geared electric motor. Each diaphragm element can extend beyond the centerline as in figure 8.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2876

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4, 5, 6, 10, 11, 14, 16, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nunan. Nunan discloses all of the elements of applicant's claimed invention except for the guide block having grooves for the collimator plates, the detachable coupling of the power transmitting elements, and the positioning sensing means. Official Notice is taken that grooved housings for collimator plates and position sensing means are well known in the collimator art and would have been obvious if not inherent in the device of Nunan motivated by the benefits to collimator alignment and accurate positioning (needed in radiation therapy). To make the power transmitting elements detachable would have been obvious to one of ordinary skill in the art motivated by the benefits to ease of replacement of failing parts.

Allowable Subject Matter

Art Unit: 2876

6. Claims 2, 12, 13, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art teaches or suggests the semi-circle or fan shaped arrangements of claims 2 and 12, the superposition of drives of claim 13, or the thickening rib of claims 18 and 19.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vilsmeier et al. disclose a collimator assembly having one drive for each plate. Leavitt et al. disclose that potentiometers are well known in a device similar to Nunan's with a motor 55 for each collimator blade.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Porta whose telephone number is 703-308-4852. The examiner can normally be reached on Mon-Thurs, 6:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald T. Hajec can be reached on 703-308-4075. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-305-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Application/Control Number: 09/043,951

Page 5

Art Unit: 2876

A handwritten signature in black ink, appearing to read 'DPP', with a long horizontal line extending to the right.

David P. Porta
Primary Examiner
Art Unit 2876

DPP
September 20, 1999